WE CLAIM:

1. A dual band, dual pol, 90 degree azimuth bandwidth, variable downtilt antenna having a first arrangement of dipole elements forming a first band and a second arrangement of dipole elements forming a second band.

2. The antenna as specified in Claim 1 wherein said first band is fed by a microstrip disposed upon a printed circuit board.

3. The antenna as specified in Claim 2 further comprising a first dielectric member slidingly disposed over said microstrip.

4. The antenna as specified in Claim 3 wherein the microstrip has a first microstrip portion having a serpentine pattern with said first dielectric member slidably disposed thereover.

5. The antenna as specified in Claim 2 wherein the first microstrip portion feeds a second and a third microstrip portion each having a serpentine pattern.

6. The antenna as specified in Claim 5 further comprising a second dielectric member slideably disposed over the second microstrip portion.

7. The antenna as specified in Claim 6 further comprising a third dielectric member slideably disposed over the third microstrip portion.

8. The antenna as specified in Claim 7 further comprising a unitary member rigidly coupled to each of the first, second and third dielectric members.

9. The antenna as specified in Claim 8 wherein the unitary member slidably moves each of the first, second and third dielectric members in unison.

10. The antenna as specified in Claim 7 wherein the first dielectric member has a different dielectric constant than the second and third dielectric members.

11. The antenna as specified in Claim 10 wherein the second and third dielectric members have the same dielectric constant.

12. The antenna as specified in Claim 10 wherein the first dielectric member has a higher dielectric constant than the second and third dielectric members.

13. The antenna as specified in Claim 2 further comprising a thin member disposed between the first dielectric member and the underlying first microstrip portion.

14. The antenna as specified in Claim 13 wherein the thin member is attached over the first microstrip portion.

15. The antenna as specified in Claim 14 wherein the thin member comprises a layer of adhesive material with a fixed dielectric constant.

16. The antenna as specified in Claim 15 wherein the adhesive material is Teflon® tape.

17. The antenna as specified in Claim 9 wherein the unitary member is attached to each of the first, second and third dielectric members with an adhesive.

18. The antenna as specified in Claim 9 further comprising a flexible member biased against a portion of the unitary member to resiliently bias the first member towards the first microstrip portion.

19. The antenna as specified in Claim 6 wherein the first, dielectric material is comprised of a ceramic material, and the second and third dielectric materials comprise PTFE based material.

20. The antenna as specified in Claim 19 wherein each of the first, second and third dielectric materials are planar members each having a face abutting the respective first, second and third microstrip portion.

21. The antenna as specified in Claim 1 wherein at least one said antenna element has an arm extending at 45°.

22. The antenna as specified in Claim 21 wherein at least one said antenna element has a first arm extending generally horizontal, and another opposite second arm extending at 45° with respect to the first arm.

23. The antenna as specified in Claim 1 wherein the antenna elements are dipoles, with a Balun capacitively coupled to one said dipole.

24. The antenna as specified in Claim 23 wherein said Balun is capacitively coupled to the microstrip, and the other said dipole is directly connected to a ground plane formed proximate the microstrip to form a localized contact.

25. The antenna as specified in Claim 7 wherein the second and third dielectric members shift a phase of a signal applied to the respective antenna dipoles, and the first dielectric member shifts a phase of a signal applied to the first microstrip portion at approximately a 3:1 ratio with respect to the phase shift created by second and third dielectric member.microstripmicrostrip

26. The antenna as specified in Claim 1 wherein the first band comprises a cellular band, and the second band comprises a PCS band.

27. The antenna as specified in Claim 26 wherein the cellular band comprises a center arrangement of the antenna dipoles, and the PCS band comprises a pair of antenna dipole arrangements disposed along each side of the cellular band antenna dipoles.

28. The antenna as specified in Claim 27 wherein the PCS band antenna dipoles are mechanically configured differently than the cellular band antenna dipoles to reduce cross polarization.

29. The antenna as specified in Claim 28 wherein the PCS antenna dipoles have one arm extending at an angle offset at least 45 degrees from an arm of the other dipole.

30. An antenna, comprising;

a radiating element; and

a coplanar conductive reflector having a first arm extending generally horizontally, and a second arm extending at an angle from the first arm.

31. The antenna as specified in Claim 30 wherein the second arm is angled at least 45° from the first arm.

32. The antenna as specified in Claim 30 wherein the reflector has a vertical portion coupled to the first arm and the second arm, wherein the second arm extends downwardly from the horizontal first arm.

33. The antenna as specified in Claim 32 wherein the second arm extends at least 45° downwardly from horizontal.

34. The antenna as specified in Claim 33 wherein the radiating element is directly coupled to the reflector and having a localized contact.

35. The antenna as specified in Claim 34 wherein the first arm extends approximately 90° with respect to the radiating element.

36. The antenna as specified in Claim 35 wherein the radiating element is capacitively coupled to a feed network via a Balun.

37. The antenna as specified in Claim 36 wherein the feed network is a microstrip.

38. A dual band antenna, comprising:

a first and second antenna array each forming a respective band and having a plurality of dipole antennas formed upon a groundplane; and

an electrically conductive member extending proximate said antenna arrays and having a varying width controlling the isolation of the two antenna arrays from each other.

39. The antenna as specified in Claim 38 wherein the conductive member is arched over the first and second antenna array.

40. A dual band, dual pol antenna, comprising:

a first array of dipole antennas; and

a second array of dipole antennas comprising a first and second section of antenna elements disposed each side of the first array, the first and second section of antenna elements collectively forming the second array of dipole antennas.

41. The antenna as specified in Claim 40 wherein the first array of dipole antennas are arranged collinear.

42. The antenna as specified in Claim 41 wherein the first and second section of antenna elements are each collinear.

43. The antenna as specified in Claim 42 wherein the first array of dipole antennas and the first and second sections of antenna elements are all parallel to one another.

44. The antenna as specified in Claim 40 wherein the first section of antenna elements extend 90° with respect to the second section of antenna elements.

45. The antenna as specified in Claim 40 further comprising a varying width electrically conductive member disposed across the first and second arrays controlling isolation thereof.

46. The antenna as specified in Claim 40 wherein the first and second antenna arrays are fed by a microstrip feed network.

47. The antenna as specified in Claim 46 wherein the microstrip feed network has serpentine portions.

48. The antenna as specified in Claim 47 further comprising at least one dielectric member formed over at least one said serpentine portion.

5